

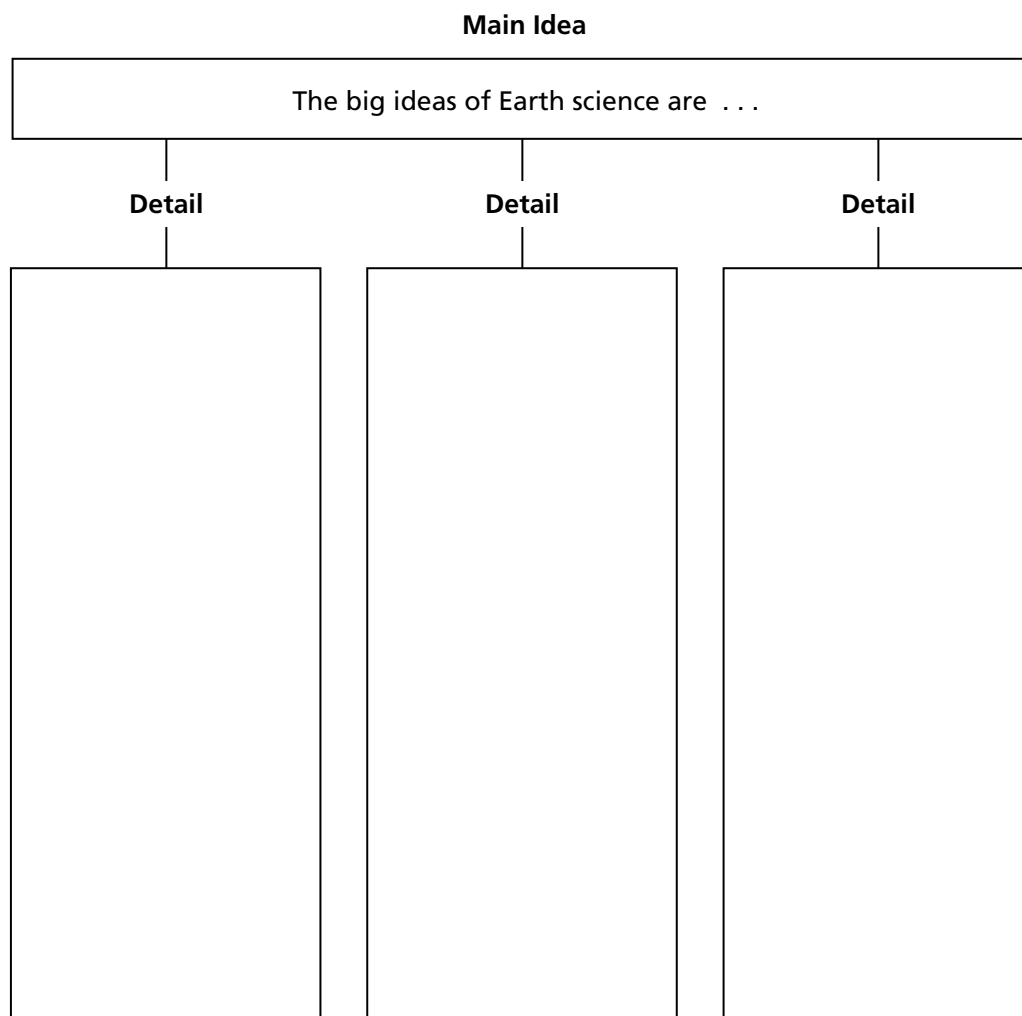
Introduction to Earth Science ▪ Guided Reading and Study

The Study of Earth Science

This section introduces the main concepts, or “big ideas,” of Earth science; discusses the subject matter of each of the branches of Earth science; and explains why Earth scientists often use models and simulations in their work.

Use Target Reading Skills

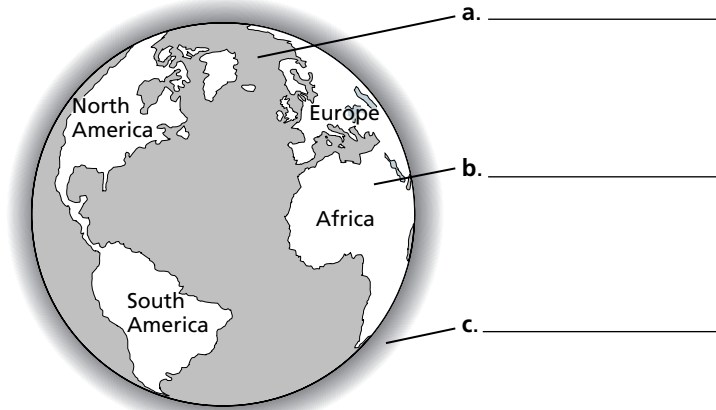
As you read about the big ideas of Earth science, fill in the detail boxes that explain the main idea in the graphic organizer below.



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Big Ideas of Earth Science

1. The body of knowledge that deals with Earth and its place in the universe is called _____.
2. In the diagram below, label the “spheres” that make up the Earth system using the following terms: *lithosphere*, *hydrosphere*, and *atmosphere*.



3. What is a system?

4. Explain how Earth can be considered a system.

5. What is the source of energy for many processes on Earth’s surface? Explain.

6. Compare and contrast the effect of constructive forces and destructive forces on Earth’s surface.

7. What is one reason that scientists are interested in studying other planets and objects in the solar system?

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The Branches of Earth Science

Match the term with its definition.

- | | |
|-----------------------------------|--|
| _____ 8. geologist | a. studies the solar system, stars, and galaxies |
| | b. studies the weather and the atmosphere |
| _____ 9. oceanographer | c. studies the solid Earth |
| | d. studies Earth's environment and resources |
| _____ 10. meteorologist | e. studies the oceans |
| _____ 11. astronomer | |
| _____ 12. environmental scientist | |
13. Venus is the planet that is closest in size to Earth. Venus also has volcanoes and an atmosphere. Which types of Earth scientists would an astronomer most likely ask to help analyze new data from Venus?
- a. environmental scientist and geologist
 - b. meteorologist and oceanographer
 - c. environmental scientist and oceanographer
 - d. geologist and meteorologist
14. An Earth scientist who studies the hydrosphere is called a(n)
- a. oceanographer.
 - b. astronomer.
 - c. geologist.
 - d. meteorologist.

Models in Earth Science

15. Why do Earth scientists often use models and computer simulations?

16. Is the following sentence true or false? Some information about an object or process may be missing from a model. _____